INDEX TO VOLUME I—MORRIS ARBORETUM BULLETIN

Nos. 1 to 8, Inclusive

	Page
Abelia grandiflora hybrid	50
Abies balsamea, Mill.	75
Abies cephalonica, Loud.	74
Abies concolor, Lindl. & Gord.	74
Abies Fraseri, Poir.	75
Abies homolepis, Sieb. & Zucc.	75
Abies lasiocarpa, Nutt.	75
Accipiter cooperi (Cooper's Hawk)	16
Accipiter velox velox (Sharp-shinned Hawk)	33
Acer platanoides	107
Acer rubrum	106
Acknowledgments	39–56
Acitis macularia (Spotted Sandpiper)	64
Agelaius phoeniceus phoeniceus (Eastern Red-wing)	66
Albizzia julibrissin, Durazz.	50
Albizzia julibrissin rosea	109
Algae	38
Allegheny Forest Service	39
Alyssum gemonense	107
Alyssum saxatile	107
Amanita muscaria	48
Ambler Nurseries	40
Ambler School of Horticulture	39
Anasplatyrhynchos platyrhynchos (Common Mallard Duck)	16
Anderson, Lewis E.	117
Arboretum, at the Flower Show	38
Arboretum, Beginnings at the Morris Arboretum.	3–6
Arboretum, Morris	3
Arboretum, Visitors	119
Archilochus colubris (Ruby-throated Hummingbird)	64
Ardea herodias herodias (Great Blue Heron)	33
Arnold Arboretum	24, 39
Associates	6
Auten, Edward, Jr.	39
Baelophus bicolor (Tufted Titmouse)	17
Barberries	87, 89
Barberries, at the Arboretum	93–96
Beall, Ruth L.	117
Beauty Bush	6
Beetle, Japanese	109–116
Benzoin aestivale	107
Berberis aetnensis, Presl.	95
Berberis aggregata	94, 95
Berberis aggregata var. *Prattii*. Schneid.	50, 96
Berberis aggregata, Schneid.	50
Berberis amurensis japonica	93, 95
Berberis angulosa, Wall.	95
Berberis Beaniana, Schneid.	95
Berberis Boschanii	95
Berberis canadensis, Mill.	88, 95
Berberis canadensis, Schneid.	88, 95
Berberis chinensis, Poir.	95
Berberis chitria, Lind.	95
Berberis circumserrata	89, 94, 95
Berberis concinna, Hook.	95
Berberis crataegina, D. C.	96
Berberis cretica, L.	96
Berberis, dasystachya	94, 96
Berberis declinata, Schrad. (*vulgaris* x *canadensis*)	96
Berberis diaphana	94, 96
Berberis dictyoneura, Schneid.	96
Berberis dictyophylla albicaulis	94, 96
Berberis Dielsiana	94, 96
Berberis Edgeworthiana, Schneid.	96
Berberis Faxoniana, Schneid.	96
Berberis fenderli, Gray	88
Berberis Francisci-Ferdinandi, Schneid.	96
Berberis Gagnepainii, Schneid.	50
Berberis Gilgiana	89
Berberis Giraldii Hesse.	96
Berberis heteropoda	89
Berberis Hookeri, Lem.	95
Berberis ilicifolia	93, 95
Berberis insignis, Hook	95
Berberis Julianae	93, 95
Berberis koreana, Palibin	95
Berberis laxiflora, Schrad. (*vulgaris* x *chinensis?*)	96
Berberis Lecomtei, Schneid.	96
Berberis Leichtlinii, Schneid.	96
Berberis macracantha, Schrad. (*vulgaris* x *aristata*)	96
Berberis Mouillacana, Schneid.	96
Berberis nummularia (Bge.) *pyrocarpa*, Schneid.	96
Berberis ottawensis	93
Berberis ottawensis, Schneid. (*vulgaris* x *Thunbergii*)	96
Berberis parvifolia, Sprague	96

	Page
Berberis Poirettii	94
Berberis polyantha, Hemsl.	96
Berberis provincialis	94
Berberis provincialis, Schrad. (*vulgaris x sibirica?*)	
Berberis rehderiana	88
Berberis Sargentiana, Schneid.	51, 95
Berberis sibirica	94
Berberis Sieboldii	93, 96
Berberis Silva-Taroucana, Schneid.	96
Berberis Soulieana, Schneid.	95
Berberis Spaethii, Schneid. (*chitria? x ?*)	96
Berberis thibetica, Schneid.	96
Berberis Thunbergii	93, 96
Berberis Thunbergii, var. *argento-marginata*	88
Berberis Thunbergii, var. *maximowiczii*	88, 96
Berberis Thunbergii, var. *minor*	88, 95, 96
Berberis Thunbergii, plurifolio (*B. ottawensis*)	89
Berberis Thunbergii, plurifolia erecta	88
Berberis Thunbergii, purpurea	89
Berberis Thunbergii, x julianae (*B. mentorensis*)	89
Berberis Thunbergii, x vulgaris (*B. ottawensis*)	89
Berberis Tischleri, Schneid.	96
Berberis triacanthrophora, Fedde.	50, 95
Berberis turcomanica, var. *integerrima*	89
Berberis Veirchii, Schneid.	51, 95
Berberis Vernae	94, 96
Berberis Vernae, hybrid	50
Berberis verruculosa, Hemsl. & Wils.	95
Berberis virescens, Hook.	96
Berberis vulgaris, L.	87, 93, 96
Berberis vulgaris, var. *alba* (var. *leucocarpa* K. Koch)	88
Berberis vulgaris, var. *albo-variegata*	88
Berberis vulgaris, argento-marginata	88
Berberis vulgaris, var. *atropurpurea*	88
Berberis vulgaris, var. *aureo-marginata*	88
Berberis vulragis, var. *dulcis*	88
Berberis vulgaris, var. *enuclea* (var. *aspenna* Willd.-var. *apyrena*, Schnad.)	88
Berberis vulgaris, var. *lutea*	88
Berberis Wilsonae	94
Berberis Wilsonae, Hemsl. & Wils.	50, 96
Berberis Wilsonae, Stapfiana, Schneid.	96
Berberis Wilsonae, subcauliata, Schneid.	96
Berberis xanthoxylon, Hassk.	96
Berberis yunnanensis, Franch.	96
Birds at the Arboretum in Late Fall	15–18
Birds of the Arboretum	63–66
Birds of the Arboretum, Late Winter	32, 33
Bittern, American, (*Botaurus lentiginosus*)	63
Blackbird, Eastern Red-wing, (*Agelaius phoeniceus phoeniceus*)	66
Bloomfield	3
Blue Jay, Northern (*Cyanocitta cristata cristata*)	17
Bobolink (*Dolichonyx oryzivorus*)	66
Boletus bicolor	48
Boletus brevipes	47
Boletus granulatus	47
Boletus pictis	47
Bombycilla cedrorum (Cedar Waxwing)	17
Botaurus lentiginosus (American Bittern)	63
Boxwood species	6, 11–14, 27–30
Bromeliads	38
Buddleias	109
Burk, Louis	7
Bulbophyllum	120
Caelogyne	120
Calvert, Dr. Philip P.	43–45, 109–116
Calvert, Mrs. P. P.	39
Calycanthus occidentalis, Hook & Arn.	51
Campsis radicans	109
Caragana arborescens	107
Cardinal, Eastern (*Richmondena cardinalis cardinalis*)	18
Carpodacus purpureus purpureus (Eastern Purple Finch)	33
Catbird (*Dumetella carolinensis*)	64
Cedar, Gold Tip Red	42
Cedar, White	6
Cedars, Atlas	27
Cedrela sinensis, Juss.	51
Cedrus deodora	39
Cedrus deodora, Laws	28
Cedrus libanotica, Link.	28
Cephalotaxus drupacea, Sieb. & Zucc.	29, 76
Cephalotaxus Fortunei, Hook	29
Ceratostomella	21, 22
Certhia familiaris americana (Creeper, Brown)	17
Chaetura pelagica (Chimney Swift)	64
Chamaecyparis (Cypress)	10
Chamaecyparis filifera, Bliss.	76
Chamaecyparis Lawsoniana allumii, Beiss.	76
Chamaecyparis nootkatensis	6
Chamaecyparis obtusa Crippsii, Redh.	75

	Page
Chamaecyparis pisifera, Endl.	76
Chamaecyparis pisifera plumosamea, Beiss.	75
Chamaecyparis pisifera squarrosa, Beiss. & Höchst.	76
Chamaecyparis pisifera sulphurea, Schelle.	76
Chickadee, Black-capped (*Penthester atricapillus atricapillus*)	17
Childs, Thomas W.	117
Chimney Swift (*Chaetura pelagica*)	64
Clematis paniculata	109
Clematis viticella	6
Clerodendron trichotomum	51
Clethra alnifolia	109
Coccyzus americanus americanus (Yellow-billed Cuckoo)	64
Colaptes auratus luteus (Northern Flicker)	33
Compton	3
Conifers	27–30
Conifers, Western	39
Conservation Department of New York	39
Conservation of Trees	30
Cornus mas	106
Cornus species	6
Corrections	67, 100
Corthyliocalendula calendula (Eastern Ruby-crowned Kinglet)	17
Corvus brachyrhynchos brachyrhynchos (Eastern Crow)	17
Corylopsis	107
Cowbird, Eastern (*Molothrus ater ater*)	66
Crab, Bechtel's	105
Crab, Carmine	105
Crab, Parkman	105
Crab, Prairie	103, 105
Crab, Red-vein	105
Crab, Scheidecker's	104
Crab, Tea	105
Creeper, Brown (*Certhia familiaris americana*)	17
Crocker, Dr. William	8
Cryptomeria japonica	35
Cryptomeria japonica, D. Don.	28
Cryptomeria japonica, Lobbii, Carr.	28
Cuckoo, Yellow-billed (*coccyzus americanus americanus*)	64
Cunninghamia lanceolata, Hook.	28
Cyanocitta cristata cristata (Northern Blue Jay)	17
Coral berries	6
Cypress (*Chamaecyparis*)	10
Cytisus	107
Davidia involucrata, Baill.	51
Deciduous trees	39, 40
Dendrobium	120
Dendroica aestiva aestiva (Eastern Yellow Warbler)	65
Dendroica castanea (Bay-breasted Warbler)	65
Dendroica coronata (Myrtle Warbler)	65
Dendroica fusca (Blackburnian Warbler)	65
Dendroica palmarum hypochrysea (Yellow Palm Warbler)	65
Dendroica pennsylvanica (Chestnut-sided Warbler)	65
Dendroica striata (Black-poll Warbler)	65
Deutzias	108
Deutzia carnea stellata, Rehd.	51
Deutzia crenata, D., *scabra* and varieties	52
Deutzia discolor, Hemsl.	51
Deutzia gracilis, Sieb. & Zucc.	52
Deutzia longifolia, Frane	51
Deutzia parviflora, Bge.	51
Deutzia rosea, Rehd.	52
Deutzia species	
Deutzia Vilmorinae, Lemoine	51
Diervilla florida, Sieb. & Zucc.	52
Diseases, Plane Tree	8, 22
Distribution of Seeds and Plants	5
Dixon, Mrs. Eleanor Widener	120
Doak, Dr. K. D.	45–49
Dolichonyx orysivorus (Bobolink)	66
Dove Tree	51
Dreer, Henry A., Inc.	56
Dryobates pubescens medianus (Northern Downy Woodpecker)	17
Dryobates villosus villosus (Eastern Hairy Woodpecker)	17
Duck, Common Mallard (*Anasplatyrhynchos platyrhynchos*)	16
Dumetella carolinensis (Catbird)	64
Dutch Elm Disease	6, 8, 19–21
Elaeagnus multiflora Thunbergii	52
Elaeagnus pungens maculata, Rehd.	52
Elm, Small-leaved Chinese	6
Epidendrum	120
Epiphytes	38
Erica carnea	106
Erica vagans, L.	52
Erosion	82, 83
Evodea Daniellii	6

	Page
Fairmount Park Commission	40
Falco sparverius sparverius (Eastern Sparrow Hawk)	16
Fearon, Charles	120
Finch, Eastern Purple (*Capodacus purpureus purpureus*)	33
Flicker, Northern (*Colaptes auratus luteus*)	33
Florida Moss	38
Flowering Crab-apples	103
Flycatcher, Northern Crested (*Myiarchus crinitus boreus*)	64
Fogg, Dr. John M., Jr.	98–100
Fontanesia Fortunei, Carr.	52
Forests and Waters, Department of	120
Foreword	2
Forsythia	107
Forsythia intermedia, Zabel.	52
Forsythia suspensa Fortunei, Rehd.	52
Forsythia suspensa, Vahl.	52
Forsythia viridissima, Lindl.	52
Fosberg, F. R.	118
Fothergilla	108
Garden News	56
Genista	107
Geothypis trichas trichas (Maryland Yellow Throat)	65
Glendinning, Colonel Robert	55
Goldfinch, Eastern (*Spinus tristis tristis*)	18
Gordinia alatamaha	109
Grackle, Purple (*Quiscalus quiscula quiscula*)	33
Grosbeak, Rose-breasted (Hedymeles ludovicianus)	68
Growth-Promoting Action of Ethylene and of Other Chemical Substances	77–81
Hamamelis japonica	106
Hamamelis mollis	106
Hamamelis vernalis	106
Hamamelis virginiana	106
Harper, William Warner	67
Hawk, Cooper's (*Accipiter Cooperi*)	16
Hawk, Eastern Red-tailed (*Buteo borealis borealis*)	16
Hawk, Eastern Sparrow (*Falco sparverius sparverius*)	16
Hawk, Northern Red-shouldered (*Buteo lineatus lineatus*)	16
Hawk, Sharp-shinned (*Accipiter velox velox*)	33
Heather, Cornish	52
Hedymeles ludovicianus (Rose-breasted Grosbeak)	66
Hemlocks	24
Hemlocks, common	6
Herbarium of the Morris Arboretum (The)	98–100
Heron, Eastern Green (*Butoides virescens virescens*)	16
Heron, Great Blue	33
Hirundo erythrogaster (Barn Swallow)	64
Holly, English	53
Hovenia dulcis, Thunb.	52
Hummingbird, Ruby-throated (*Archilochus colubris*)	64
Hunnewell Estate	39
Hydrangea "Pee Gee"	109
Hylocichla fuscens fuscens (Veery)	65
Hylocichla mustelina (Wood Thrush)	64
Hypericum species	6
Icterus galbula (Baltimore Oriole)	66
Idesia polycarpa, Maxim.	52
Ilex crenata, Thunb.	53
Ilex crenata, var.	52
Ilex aquifolium, L.	53
Ilex Pernyi, Franch.	53
Illuminating Gas Injury	8, 38, 59–62
Indigo Bunting (*Passerina cyanea*)	66
Iris	39
Ivy, English	39
Jackson, Dr. L. W. R.	8
Jenkins, Charles F.	24
Jones, Dr. Frank Morton	37
Jump, John Austin	97, 98
Junco hyemalis (Slate-colored Junco)	18
Junco, Slate-colored (*Junco hyemalis*)	18
Juniper	27
Juniperus chinensis, L.	76
Juniperus chinensis Pfitzeriana, Spaeth	76
Juniperus communis, L.	76
Juniperus excelsa stricta	42
Juniperus virginiana	42
Juniperus virginiana, L.	76
Kalmia latifolia	6
Kildeer (*Oxyechus vociferus vociferus*)	33
Kingfisher, Eastern Belted (*Megaceryle alcyon alcyon*)	16
Kinglet, Eastern Golden-crowned (*Regulus satrapa satrapa*)	33
Kinglet, Eastern Ruby-crowned (*Corthylio calendula calendula*)	17
Koelreuteria paniculata	26
Kolkwitzia amabilis, L.	6
Koster Nursery Co.	24

	Page
Labels	5
Laburnum	108
Laelia	120
Lambert, James	11, 27–30, 50–55, 74–76
Larch, European	26
Larix decidua	26
Larsen, Esther L.	118
Lecture Course	5
Libocedrus decurrens, Torr.	29
Ligustrum acuminatum, Koehne.	53
Ligustrum amurense, Carr.	53
Ligustrum ovalifolium, Hassk.	53
Ligustrum species	6
Lilac scions	40
Lilacs	71–73
Liriodendron tulipifera	47, 49
Lonicera	6
Lonicera fragrantissima	106
Lonicera sempervirens	109
Magnolia	90
Magnolia acuminata	92
Magnolia anise	91
Magnolia denudata	107, 91
Magnolia Fraseri	92
Magnolia grandiflora	53, 93
Magnolia Kobus	90, 91, 107
Magnolia liliflora	90, 91
Magnolia macrophylla	92
Magnolia obovata	92
Magnolia parviflora	92
Magnolia rosea	91
Magnolia salicifolia	91
Magnolia Soulangeana	91, 107
Magnolia Soulangeana, Andre Le Roy	91
Magnolia Soulangeana Broszoni	91
Magnolia Soulangeana Lennei	91, 108
Magnolia Soulangeana Norbertiana	91
Magnolia Soulangeana speciosa	91
Magnolia Soulangeana Verbanica	91
Magnolia stellata	90, 107
Magnolia tripetala	26, 90, 92
Magnolia virginiana	92
Magnolia Watsonii	92
Magnolia Wilsonii	92
Mahonia Aquifoloum	89, 93, 107
Mahonia Aquifoloum, Nutt.	95
Mahonia Bealii	93, 95
Mahonia Fremontii, Fedde.	95
Mahonia japonica	53
Mahonia nervosa, Nutt.	95
Mahonia repens	89
Mahonia repens, G. Don.	95
Malacosoma americana	45
Malus arnoldiana	105, 108
Malus atrosanguinea	105, 108
Malus baccata	108
Malus baccata mandshurica	104
Malus bracteata	105
Malus coronaria	103, 105
Malus floribunda	104, 108
Malus Halliana Parkmanii	105, 108
Malus hupehensis	105
Malus ioensis	103, 105
Malus micromalus	108
Malus niedzwetzkyana	105
Malus prunifolia	104
Malus purpurea	105, 108
Malus Sargentii	104, 105, 108
Malus Scheideckeri	104, 108
Malus Sieboldii	104, 105
Malus spectabilis, Riversii	105
Malus toringoides	105
Malus sumi	105
Masonic Home, Elizabethtown	40, 119
May, Dr. Curtis	8, 19
May Day Frolic	5
McQuilkin, William E.	118
Meadowlark, Eastern (*Sternella magna magna*)	33
Megaceryle alcyon alcyon (Eastern Belted Kingfisher)	16
Melospiza georgiana (Swamp Sparrow)	66
Melospiza melodia melodia (Eastern Song Sparrow)	18
Miltonia	120
Mniotilta varia (Black and White Warbler)	65
Molothrus ater ater (Eastern Cowbird)	66
Monograph	1, 19
Montgomery, Colonel Robert H.	7
Morris, John T.	3
Morris, Lydia T.	3
Morris Arboretum Fellows	117, 118
Mourning Dove (*Zenaidura macroura carolinensis*)	16
Myiarcgus crinitus boreus (Northern Crested Fly-Catcher)	64
Mycorrhizae of Trees and Shrubs	45–49

	Page
Nalle, Albert	119
Nandina domestica, Thunb.	54
National Museum	56
New York Botanic Garden	24, 40, 56, 120
Nicotiana tabacum	80
Nuthatch, Red-breasted (*Sitta canadensis*)	17
Order of Bloom of Woody Trees and Shrubs (The)	106
Oriole, Baltimore (*Icterus galbula*)	66
Osprey (*Pandion haliaetus carolinensis*)	64
Outdoor Arts Company	39
Oven-bird (*Seiurus aurocapillus*)	65
Oxford Paper Co.	39
Oxydendron arboreum, D. C.	6, 26
Oxyechus vociferus vociferus (Killdeer)	33
Pandion haliaetus carolinensis (Osprey)	64
Passer domesticus domesticus (English Sparrow)	18
Passerina cyanea (Indigo Bunting)	66
Passerella iliaca iliaca (Eastern Fox Sparrow)	18
Pennsylvania State College	39
Penthrestes atricapillus atricapillus (Black-capped Chicadee)	17
Peony Plants	39
Phasianus colchicus torquatus (Ring-necked Pheasant)	16
Pheasant, Ring-necked (*Phasianus colchicus torquatus*)	16
Philadelphus species	6
Phoebe, Eastern (*Sayornis phoebe*)	64
Picea Abies, dwarf variety	75
Picea Abies, Karst	75
Picea Abies pendula, Nash	75
Picea Engelmanni, Engelm.	75
Picea glauca Albertiana, Sarg.	75
Picea glauca nana, Rehd.	95
Picea Koyamai, Shiras	75
Picea omorika, Purkyne	75
Picea polita, Carr	75
Picea pungens glauca, Beiss.	75
Picea Smithiana, Boiss.	75
Pieris floribunda	107
Pieris japonica	107
Pine, Austrian	35
Pine, Himalayan	10
Pine, Himalayan Disease	8
Pine, Japanese Black	26
Pine, Long Leaf	27
Pine, Nut	58
Pine, One-leaved	57, 58
Pine, Swiss Stone	10
Pine, White	30, 49, 69, 70
Pinetum	9
Pinus Banksiana, Zucc.	76
Pinus Cembra, L.	10, 35, 42, 101, 102
Pinus cembroides, Zucc., var. *monophylla*, Voss.	57, 58
Pinus columnaris, Beissn.	102
Pinus densiflora umbraculifera, Mayr.	76
Pinus excelsa, Wall.	10, 34, 35, 40, 85
Pinus monophylla	35
Pinus palustris	27
Pinus resinosa	39
Pinus strobus	39, 49
Pinus sylvestris, L.	76
Pinus taeda, L.	76
Pinus Thungergiana	26
Pinus zebrina, Bailey	86, 97
Pipilo erythrophthalmus erythrophthalmus (Red-eyed Towhee)	66
Piranga erythromelas (Scarlet Tanager)	66
Pitcher Plants, North American	37
Planera aquatica	39
Plant Collecting Trip	68
Plant Hybridization, Beginnings of	19
Platanus species	22
Platycerium grande	7
Polygonum Aubertii	109
Poncirus trifoliata, Raf.	54
Popillia japonica	109
Poplar species	6
Poplar, Yellow	47, 49
Poplars, Paper	39
Populus tremuloides	106
Prinsepia sinensis	107
Privets	6
Protoplasm	37
Prunus Sargentii	107
Prunus subhirtella	107
Prunus subhirtella pendula	107
Prunus subhirtella pendula Tanaka	54
Prunus yedoensis	107
Pyracantha coccinea Lalandii, Dipp.	54
Raisin Tree, Japanese	52
Recent Gifts	119, 120
Redstart, American (*Setophaga ruticilla*)	66

	Page
Regulus satrapa satrapa (Eastern Golden-Crowned Kinglet)	33
Rhododendron arborescens	109
Rhododendron, "Boule de Neige"	108
Rhododendron calendulaceum	108
Rhododendron Hybrids	40
Rhododendron maximum	109
Rhododendron mucronulatum	106
Rhododendron obtusum	107
Rhododendron obtusum amoenum, Rehd.	54
Rhododendron obtusum Kaempferi	108
Rhododendron obtusum var. *Hinodegiri*	54
Rhododendron Schlippenbachii	108
Rhododendron Vaseyi	108
Rhododendron yedoense poukhanense	108
Ribes odoratum	107
Richmondena cardinalis cardinalis (Eastern Cardinal)	18
Robin, Eastern (*Turdus migratorius migratorius*)	33
Rock, Dr. Joseph F.	5
Rosa blanda	108
Rosa hugonis	108
Rosa multiflora	108
Rosa primula	108
Rosa setigera	109
Rosa virginiana	108
Rosenbluth, E. M.	39
Roses	56
Rotan, Mrs. Samuel P.	39
Salix babylonica, L.	10
Salix discolor	106
Sandpiper, Spotted (*Actitis macularia*)	64
Saul, Maurice Bower	39, 40, 120
Sayornis phoebe (Eastern phoebe)	64
Scleroderma vulgare	47
Scolytus	20
Seed Distribution	6
Seifriz, Dr. William	37
Seirus aurocapillus (Oven-bird)	65
Seirus noveboracensis noveboracensis (Northern Water Thrush)	65
Sequoia	39
Sequoia gigantea, Decne.	29
Setophaga ruticilla (American Redstart)	66
Sinkler, Wharton	7, 38
Sitta canadensis (Red-breasted Nuthatch)	17
Sitta caroliensis caroliensis (White-breasted Nuthatch)	17
Slavin, Arthur D.	90–93
Smith, Lewis MacCuen	15–18, 32–33, 63–66
Snowberries	6
Sorrel Tree	6
Sparrow, Eastern Chipping (*Spizella passerina passerina*)	66
Sparrow, Eastern English (*Passer domesticus domesticus*)	18
Sparrow, Eastern Field (*Spizella pusilla pusilla*)	66
Sparrow, Eastern Fox (*Passerella iliaca iliaca*)	18
Sparrow, Eastern Savannah (*Passerculus sandwichensis savanna*)	66
Sparrow, Eastern Song (*Melospiza melodia melodia*)	18
Sparrow, Swamp (*Melospiza georgiana*)	66
Sparrow, Eastern Tree (*Spizella arborea arborea*)	66
Sparrow, White-throated (*Zenotrichia albicollis*)	18
Sphaeropsis malorum	35, 97, 98
Sphyrapicus varius varius (Yellow-bellied Sapsucker)	17
Spinus tristis tristis (Eastern Goldfinch)	18
Spiraea Thumbergi	107
Spizella arborea arborea (Eastern Tree Sparrow)	66
Spizella passerina passerina (Eastern Chipping Sparrow)	66
Spizella pusilla pusilla (Eastern Field Sparrow)	33
Staghorn Fern	7
Staphylea pinnata, L.	54
Starling (*Sturnus vulgaris vulgaris*)	17
Stout, Mrs. Charles H.	40
Sturnella magna magna (Eastern Meadowlark)	33
Sturnus vulgaris vulgaris (Starling)	17
Styrax japonica, Sieb. & Zucc.	55
Styrax obassia, Sieb. & Zucc.	55
Swallow, Barn (*Hirundo erythrogaster*)	64
Swan Pond	25
Swarthmore Arboretum	40, 120
Swartley, John C.	24, 93–96
Symphoricarpus species	6
Syringa	71–73
Syringa hyacinthiflora	108
Syringa Josikaea Jacq.	71
Syringa oblata	108
Syringa persica, L.	71
Syringa pubescens, Turcz.	71
Syringa villosa, Vahl.	71
Syringa vulgaris, L.	71
Tanager, Scarlet (*Piranga erythromelas*)	66

Page

Taxus baccata fastigiata, Loud. 30
Taxus canadensis aurea, Hart. 30
Taxus cuspidata nana, Rehd. 76
Taxus cuspidata, Sieb. & Zucc. 76
Taxus plants 24, 27–30, 39
Tent Caterpillar (The) 43–45
Terrestrial Pineapple 38
Teuscher, Henry 8, 35, 36
Thrasher, Brown (*Toxostoma rufum*) 64
Thrush, Northern Water (*Seirus noveboracensis noveboracensis*) 65
Thrush, Wood (*Hylocichla mustelina*) 64
Thuja occidentalis 6
Thuja occidentalis Boothii 76
Thuja occidentalis globosa, Gord. 76
Thuja occidentalis Rosenthalii, Ohlen 76
Thuja occidentalis Vervaenaena, Gord. 76
Thuja orientalis, L. 76
Thuja oridentalis, Rosedale hybrid forms..... 76
Tiphia 115
Tiphia popilliavora 115
Titmouse, Tufted (*Baeolophus bicolor*) 17
Towhee, Red-eyed (*Pipilo erythrophthalmus erythrophthalmus*) 66
Towson Nurseries 40, 120
Toxostoma rufum (Brown Thrasher) 64
Tripterygium Regelii 109
Troglodytes aedon aedon (Eastern House Wren)
True, Dr. Rodney H. 30, 31, 82, 83
Tsuga Brunoniana, Carr. 76
Tsuga canadensis 6
Tsuga canadensis, Carr. 76
Tsuga caroliniana, Engelm. 76
Tsuga diversifolia, Mast. 76
Tsuga dumosa, Sarg. 76
Tsuga Sieboldii, Carr. 76
Turdus migratorius migratorius (Eastern Robin). 33
Turkey Vulture (*Cathartes aura septentrionalis*).. 63
Ulmus parvifolia, Jacq. 6
Umbrella Tree 26
U. S. Department of Agriculture..... 40
Varnish Tree, Japanese 26
Veery (*Hylocichla fuscens fuscens*) 65
Vermivora pinus (Blue-winged Warbler) 65
Vermivora ruficapilla ruficapilla (Nashville Warbler) 65

Page

Viburnum betulifolium, Batel. 55
Viburnum hupehense, Rehd. 55
Viburnum opulus nana 55
Viburnum rhytidophyllum, Hemsl. 55
Viburnum scabrellum, Chapm. 55
Viburnum tomentosum plicatum 108
Viburnum tomentosum sterile, K. Koch..... 55
View at the Swan Pond 25
View in Japanese Garden 41
Vireo, Red-eyed (*Vireo divaceus*) 65
Vitex 109
Walcott, Mary Vaux 37
Warbler, Bay-breasted (*Dendroica castanea*)..... 65
Warbler, Black and White (*Mniotilta varia*)..... 65
Warbler, Blackburnian (*Dendroica fusca*) 65
Warbler, Black-poll (*Dendroica striata*) 65
Warbler, Blue-winged (*Vermivora pinus*) 65
Warbler, Chestnut-sided (*Dendroica pennsylvanica*) 65
Warbler, Eastern Yellow (*Dendroica aestiva aestiva*) 65
Warbler, Myrtle (*Dendroica coronata*) 65
Warbler, Nashville (*Vermivora ruficapilla ruficapilla*) 65
Warbler, Yellow Palm (*Dendroica palmarum hypochrysea*) 65
Waxwing, Cedar (*Bombycilla cedrorum*) 17
Weigelas 108
Wherry, Dr. Edgar T. 4, 37
Willow, Weeping 10
Winter Injury and Hardiness 8, 35, 36
Winter Injury to Conifers at the Morris Arboretum 27–30
Winter Injury to Miscellaneous Trees and Shrubs.50–55
Winter Lecture Course 68, 84
Wister, John C. 40, 68, 71–73, 119
Woodpecker, Eastern Hairy (*Dryobates villosus villosus*) 17
Wren, Eastern House (*Troglodytes aedon aedon*).. 64
Yellow Throat, Maryland (*Geothlypis trichas trichas*) 65
Yew, Plum 42
York, Dr. Harlan H. 8, 34, 35
Zenaidura macroura carolinensis (Eastern Mourning Dove) 16
Zirkle, Dr. Conway 19
Zonotrichia albicollis (White-throated Sparrow).. 18

Page
58
55
52
53
55
108
55
25
41
65
109
37
63
63
63
65
63
65

63
65

63

65
17
108
4, 37
10
5, 36

7–30
0–55
3, 84
119

17
64

65
42
, 35

16
19
18